RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _09/840,277E_

Source: _1FWJ6_

Date Processed by STIC: _1/30/05_

ENTERED

IFW16

RAW SEQUENCE LISTING   DATE: 01/30/2005
PATENT APPLICATION: **US/09/840,277E** TIME: 11:55:41

Input Set : **A:\A-688A (rev 1-18-05).ST25.txt**
Output Set: **N:\CRF4\01302005\I840277E.raw**

```
 3 <110> APPLICANT: FEIGE, ULRICH
 4        KOHNO, TADAHIKO
 5        LACEY, DAVID
 6        BOONE, THOMAS CHARLES
 8 <120> TITLE OF INVENTION: ADHESION ANTAGONISTS (as amended)
10 <130> FILE REFERENCE: A-688A
12 <140> CURRENT APPLICATION NUMBER: US 09/840,277E
13 <141> CURRENT FILING DATE: 2001-04-23
15 <150> PRIOR APPLICATION NUMBER: US 60/198,919
16 <151> PRIOR FILING DATE: 2000-04-21
18 <150> PRIOR APPLICATION NUMBER: US 60/201,394
19 <151> PRIOR FILING DATE: 2000-05-03
21 <160> NUMBER OF SEQ ID NOS: 161
23 <170> SOFTWARE: PatentIn version 3.2
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 684
27 <212> TYPE: DNA
28 <213> ORGANISM: Homo sapiens
31 <220> FEATURE:
32 <221> NAME/KEY: CDS
33 <222> LOCATION: (1)..(684)
35 <400> SEQUENCE: 1
36 atg gac aaa act cac aca tgt cca cct tgt cca gct ccg gaa ctc ctg      48
37 Met Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
38 1               5                   10                  15
40 ggg gga ccg tca gtc ttc ctc ttc ccc cca aaa ccc aag gac acc ctc      96
41 Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
42                 20                  25                  30
44 atg atc tcc cgg acc cct gag gtc aca tgc gtg gtg gtg gac gtg agc     144
45 Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
46             35                  40                  45
48 cac gaa gac cct gag gtc aag ttc aac tgg tac gtg gac ggc gtg gag     192
49 His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
50     50                  55                  60
52 gtg cat aat gcc aag aca aag ccg cgg gag gag cag tac aac agc acg     240
53 Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
54 65                  70                  75                  80
56 tac cgt gtg gtc agc gtc ctc acc gtc ctg cac cag gac tgg ctg aat     288
57 Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
58                 85                  90                  95
60 ggc aag gag tac aag tgc aag gtc tcc aac aaa gcc ctc cca gcc ccc     336
61 Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
62                 100                 105                 110
```

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```
64 atc gag aaa acc atc tcc aaa gcc aaa ggg cag ccc cga gaa cca cag    384
65 Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
66         115                 120                 125
68 gtg tac acc ctg ccc cca tcc cgg gat gag ctg acc aag aac cag gtc    432
69 Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
70         130                 135                 140
72 agc ctg acc tgc ctg gtc aaa ggc ttc tat ccc agc gac atc gcc gtg    480
73 Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
74 145                 150                 155                 160
76 gag tgg gag agc aat ggg cag ccg gag aac aac tac aag acc acg cct    528
77 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
78                 165                 170                 175
80 ccc gtg ctg gac tcc gac ggc tcc ttc ttc ctc tac agc aag ctc acc    576
81 Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
82                 180                 185                 190
84 gtg gac aag agc agg tgg cag cag ggg aac gtc ttc tca tgc tcc gtg    624
85 Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
86         195                 200                 205
88 atg cat gag gct ctg cac aac cac tac acg cag aag agc ctc tcc ctg    672
89 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
90         210                 215                 220
92 tct ccg ggt aaa                                                   684
93 Ser Pro Gly Lys
94 225
```

```
97  <210> SEQ ID NO: 2
98  <211> LENGTH: 228
99  <212> TYPE: PRT
100 <213> ORGANISM: Homo sapiens
102 <400> SEQUENCE: 2
104 Met Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
105 1               5                 10                  15
108 Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
109             20                  25                  30
112 Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
113         35                  40                  45
116 His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
117     50                  55                  60
120 Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
121 65                  70                  75                  80
124 Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
125                 85                  90                  95
128 Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
129             100                 105                 110
132 Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
133         115                 120                 125
136 Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val
137         130                 135                 140
140 Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
141 145                 150                 155                 160
```

```
144 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
145               165             170             175
148 Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
149               180             185             190
152 Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
153           195             200             205
156 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
157       210             215             220
160 Ser Pro Gly Lys
161 225
164 <210> SEQ ID NO: 3
165 <211> LENGTH: 8
166 <212> TYPE: PRT
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Preferred linker
172 <400> SEQUENCE: 3
174 Gly Gly Gly Lys Gly Gly Gly Gly
175 1               5
178 <210> SEQ ID NO: 4
179 <211> LENGTH: 8
180 <212> TYPE: PRT
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Preferred linker
186 <400> SEQUENCE: 4
188 Gly Gly Gly Asn Gly Ser Gly Gly
189 1               5
192 <210> SEQ ID NO: 5
193 <211> LENGTH: 8
194 <212> TYPE: PRT
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Preferred linker
200 <400> SEQUENCE: 5
202 Gly Gly Gly Cys Gly Gly Gly Gly
203 1               5
206 <210> SEQ ID NO: 6
207 <211> LENGTH: 5
208 <212> TYPE: PRT
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Preferred linker
214 <400> SEQUENCE: 6
216 Gly Pro Asn Gly Gly
217 1               5
220 <210> SEQ ID NO: 7
221 <211> LENGTH: 5
222 <212> TYPE: PRT
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RAW SEQUENCE LISTING   DATE: 01/30/2005
PATENT APPLICATION: **US/09/840,277E**   TIME: 11:55:41

Input Set : **A:\A-688A (rev 1-18-05).ST25.txt**
Output Set: **N:\CRF4\01302005\I840277E.raw**

```
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Laminin peptide
228 <400> SEQUENCE: 7
230 Tyr Ile Gly Ser Arg
231 1               5
234 <210> SEQ ID NO: 8
235 <211> LENGTH: 49
236 <212> TYPE: PRT
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Echistatin peptide
242 <400> SEQUENCE: 8
244 Glu Cys Glu Ser Gly Pro Cys Cys Arg Asn Cys Lys Phe Leu Lys Glu
245 1               5                   10                  15
248 Gly Thr Ile Cys Lys Arg Ala Arg Gly Asp Asp Met Asp Asp Tyr Cys
249             20                  25                  30
252 Asn Gly Lys Thr Cys Asp Cys Pro Arg Asn Pro His Lys Gly Pro Ala
253         35                  40                  45
256 Thr
260 <210> SEQ ID NO: 9
261 <211> LENGTH: 7
262 <212> TYPE: PRT
263 <213> ORGANISM: Artificial Sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: RGD, NGR derivative peptide
269 <220> FEATURE:
270 <221> NAME/KEY: misc_feature
271 <222> LOCATION: (2, 5 and)..(7)
272 <223> OTHER INFORMATION: Xaa is any amino acid
274 <400> SEQUENCE: 9
```
W--> 276 Arg Xaa Glu Thr Xaa Trp Xaa
```
277 1               5
280 <210> SEQ ID NO: 10
282 <400> SEQUENCE: 10
```
W--> 283 000
```
285 <210> SEQ ID NO: 11
286 <211> LENGTH: 9
287 <212> TYPE: PRT
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: RGD, NGR derivative peptide
294 <220> FEATURE:
295 <221> NAME/KEY: misc_feature
296 <222> LOCATION: (2, 3, 7 and)..(8)
297 <223> OTHER INFORMATION: Xaa is any amino acid
299 <400> SEQUENCE: 11
```
W--> 301 Cys Xaa Xaa Arg Leu Asp Xaa Xaa Cys
```
302 1               5
```

RAW SEQUENCE LISTING   DATE: 01/30/2005
PATENT APPLICATION: **US/09/840,277E**   TIME: 11:55:41

Input Set : **A:\A-688A (rev 1-18-05).ST25.txt**
Output Set: **N:\CRF4\01302005\I840277E.raw**

```
    305 <210> SEQ ID NO: 12
    307 <400> SEQUENCE: 12
W--> 308 000
    310 <210> SEQ ID NO: 13
    311 <211> LENGTH: 9
    312 <212> TYPE: PRT
    313 <213> ORGANISM: Artificial Sequence
    315 <220> FEATURE:
    316 <223> OTHER INFORMATION: RGD, NGR derivative peptide
    319 <220> FEATURE:
    320 <221> NAME/KEY: misc_feature
    321 <222> LOCATION: (1, 2, 3, 7, 8 and)..(9)
    322 <223> OTHER INFORMATION: Xaa is any amino acid with Xaa at 1, 3, 7 and 9 capable of
    323       forming a bridge.
    325 <400> SEQUENCE: 13
W--> 327 Xaa Xaa Xaa Arg Gly Asp Xaa Xaa Xaa
    328 1               5
    331 <210> SEQ ID NO: 14
    332 <211> LENGTH: 17
    333 <212> TYPE: PRT
    334 <213> ORGANISM: Artificial Sequence
    336 <220> FEATURE:
    337 <223> OTHER INFORMATION: RGD, NGR derivative peptide
    340 <220> FEATURE:
    341 <221> NAME/KEY: misc_feature
    342 <222> LOCATION: (2, 3, 4, 5, 6, 12, 13, 14, 15 and)..(16)
    343 <223> OTHER INFORMATION: At positions 2, 3, 4, 5, 6, 12, 13, 14, 15 and 16, Xaa is
any
    344       amino acid or may be absent.
    346 <400> SEQUENCE: 14
W--> 348 Cys Xaa Xaa Xaa Xaa Xaa Cys Arg Gly Asp Cys Xaa Xaa Xaa Xaa Xaa
    349 1               5                   10                  15
    352 Cys
    356 <210> SEQ ID NO: 15
    357 <211> LENGTH: 8
    358 <212> TYPE: PRT
    359 <213> ORGANISM: Artificial Sequence
    361 <220> FEATURE:
    362 <223> OTHER INFORMATION: RGD, NGR derivative peptide
    365 <220> FEATURE:
    366 <221> NAME/KEY: misc_feature
    367 <222> LOCATION: (1 and)..(8)
    368 <223> OTHER INFORMATION: Xaa is an independently selected amino acid.
    370 <220> FEATURE:
    371 <221> NAME/KEY: misc_feature
    372 <222> LOCATION: (2 and)..(7)
    373 <223> OTHER INFORMATION: Xaa is any amino acid, each which is independently selected.
    375 <220> FEATURE:
    376 <221> NAME/KEY: misc_feature
    377 <222> LOCATION: (5)..(5)
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 01/30/2005
PATENT APPLICATION: US/09/840,277E   TIME: 11:55:42

Input Set : A:\A-688A (rev 1-18-05).ST25.txt
Output Set: N:\CRF4\01302005\I840277E.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; Xaa Pos. 2,5,7
Seq#:11; Xaa Pos. 2,3,7,8
Seq#:13; Xaa Pos. 1,2,3,7,8,9
Seq#:14; Xaa Pos. 2,3,4,5,6,12,13,14,15,16
Seq#:15; Xaa Pos. 1,2,5,6,7,8
Seq#:16; Xaa Pos. 1,2,3,6,7,8,9,10
Seq#:17; Xaa Pos. 3,5,6,13,15
Seq#:18; Xaa Pos. 2,3,4,7,15
Seq#:19; Xaa Pos. 3,4,5,6,8,13,15,18
Seq#:20; Xaa Pos. 2,5,6,7,12,13,14
Seq#:21; Xaa Pos. 1,3,6,9,12,13
Seq#:40; Xaa Pos. 3,4
Seq#:50; Xaa Pos. 2,3
Seq#:58; Xaa Pos. 5
Seq#:59; Xaa Pos. 6
Seq#:86; Xaa Pos. 3,15
Seq#:87; Xaa Pos. 13,15
Seq#:138; Xaa Pos. 1,4,5,6
Seq#:139; Xaa Pos. 1,2,5,6,7
Seq#:140; Xaa Pos. 1,2,3,6,7,8
Seq#:141; Xaa Pos. 1,2,3,4,5,8,9,10
Seq#:142; Xaa Pos. 1,4,5,6,7
Seq#:143; Xaa Pos. 1,2,3,6,7,8
Seq#:144; Xaa Pos. 1,2,3,6,7,8,9
Seq#:145; Xaa Pos. 1,2,3,4,7,8,9,10
Seq#:146; Xaa Pos. 1,2,3,4,5,8,9,10,11
Seq#:147; Xaa Pos. 1,4,5,6,7,8
Seq#:148; Xaa Pos. 1,2,5,6,7,8,9
Seq#:149; Xaa Pos. 1,2,3,6,7,8,9,10
Seq#:150; Xaa Pos. 1,2,3,4,7,8,9,10,11
Seq#:151; Xaa Pos. 1,2,3,4,5,8,9,10,11,12
Seq#:152; Xaa Pos. 1,4,5,6,7,8,9
Seq#:153; Xaa Pos. 1,2,5,6,7,8,9,10
Seq#:154; Xaa Pos. 1,2,3,6,7,8,9,10,11
Seq#:155; Xaa Pos. 1,2,3,4,7,8,9,10,11,12
Seq#:156; Xaa Pos. 1,2,3,4,5,8,9,10,11,12,13
Seq#:157; Xaa Pos. 1,4,5,6,7,8,9,10
Seq#:158; Xaa Pos. 1,2,5,6,7,8,9,10,11
Seq#:159; Xaa Pos. 1,2,3,6,7,8,9,10,11,12
Seq#:160; Xaa Pos. 1,2,3,4,7,8,9,10,11,12,13
Seq#:161; Xaa Pos. 1,2,3,4,5,8,9,10,11,12,13,14

. .. . ˉ

VERIFICATION SUMMARY   DATE: 01/30/2005
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Input Set : **A:\A-688A (rev 1-18-05).ST25.txt**
Output Set: **N:\CRF4\01302005\I840277E.raw**

```
L:276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:283 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (10) SEQUENCE:
L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:308 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (12) SEQUENCE:
L:327 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:388 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:436 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:480 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:500 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
M:341 Repeated in SeqNo=19
L:524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:962 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:0
L:1108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:0
L:1128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:0
L:1524 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86 after pos.:0
L:1544 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:87 after pos.:0
L:2634 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:138 after pos.:0
L:2670 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:139 after pos.:0
L:2706 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:140 after pos.:0
L:2742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:141 after pos.:0
L:2778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:142 after pos.:0
L:2814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:143 after pos.:0
L:2850 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:144 after pos.:0
L:2886 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:145 after pos.:0
L:2922 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:146 after pos.:0
L:2958 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:147 after pos.:0
L:2994 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:148 after pos.:0
L:3030 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:149 after pos.:0
L:3066 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:150 after pos.:0
L:3102 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:151 after pos.:0
L:3138 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:152 after pos.:0
L:3174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:153 after pos.:0
L:3210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:0
L:3246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155 after pos.:0
L:3282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:0
L:3318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:157 after pos.:0
L:3354 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:158 after pos.:0
L:3390 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:159 after pos.:0
L:3426 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:160 after pos.:0
L:3462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:161 after pos.:0
```